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MARKETING MARGINS FOR FRUITS AND VEGETABLES

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MARKETING MARGINS FOR FRUITS AND VEGETABLES 1/

Marketing margins for fruits and vegetables were 6 percent higher in 1958 than in 1957 and 34 percent higher than during 1947-49. The largest increases were for grapefruit, oranges, potatoes, and tomatoes.

This article discusses trends in prices and marketing charges, and compares recent changes in prices and marketing margins for fresh oranges, canned orange juice, and frozen orange concentrate in 2 major cities; and for late-crop potatoes in 4 major cities.

Retail prices for fruits and vegetables in the market basket averaged 7 percent higher in 1958 than in 1957. 2/ About two-thirds of this increase was reflected in higher marketing margins and one-third was received by farmers in the form of higher prices. 3/ Most of the increase in retail and farm prices occurred during the first half of the year and was due primarily to adverse weather conditions. Below-freezing temperatures, flooding rains and high winds from mid-December 1957 through February 1958 severely damaged citrus fruits and potatoes and destroyed most of the tender vegetable crops in Florida. Rains and cold weather in Texas delayed harvests of winter and early spring vegetables. Unfavorable weather in California also contributed to the short supply of citrus fruits.

Marketing margins for fruits and vegetables increased again in 1958, as they have in 8 of the last 10 years. Marketing charges were 6 percent higher than in 1957 and 34 percent higher than during the 1947-49 period. The farmer's share of the consumer's dollar spent for fruits and vegetables during 1958 was 29 cents, 1 cent above 1957 but 4 cents below the 1947-49 average.

Fresh Fruits and Vegetables

Retail prices of fresh fruits and vegetables averaged 7 percent higher and farm values of equivalent quantities of fresh produce averaged 12 percent higher in 1958 than in 1957. Percentage changes varied by individual items; however, the largest increases were for grapefruit, oranges, and tomatoes. The Florida freezes destroyed much of the potential winter and spring supply of each of these crops.

1/ Prepared by John K. Hanes, Agricultural Economist, Market. Res. Div., Agr. Market. Serv.

2/ The market basket contains the average quantities of farm-produced food products purchased for consumption at home by urban wage-earner and clerical-worker families in 1952.

3/ The marketing margin or farm-retail spread is an estimate of the charges made by marketing agencies for assembling, processing, transporting, and distributing farm products. It is the difference between the retail price and the farm value or payment the farmer receives for the farm product.

Marketing charges for fresh fruits and vegetables were 5 percent higher in 1958 than in 1957 and 47 percent higher than in 1947-49. Produce items with the largest retail and farm price increases in 1958 also had the largest increases in marketing charges. Marketing charges increased 13 percent for grapefruit, 16 percent for oranges, and 5 percent for potatoes and tomatoes. The farmer's share of the dollar consumers spent for fresh fruits and vegetables during 1958 was 36 cents compared with 34 cents for 1957 and 41 cents for 1947-49.

Processed Fruits and Vegetables

Prices for processed fruits and vegetables are much more stable than those for fresh fruits and vegetables. Retail prices of processed fruits and vegetables changed relatively little from 1953 through 1957 but rose 6 percent from 1957 to 1958. Farm values of processed fruits and vegetables have changed little since 1953.

Marketing charges for processed fruits and vegetables, like retail and farm prices, changed little between 1953 and 1957 but rose 8 percent between 1957 and 1958. Again the largest increases were for grapefruit, oranges, and tomatoes. Marketing charges increased 27 percent for canned orange juice, 58 percent for frozen orange concentrate, and 17 percent for canned tomatoes. The farmer's share of the dollar consumers spent for processed fruits and vegetables was 18 cents in 1958, 2 cents less than for 1957.

Factors Affecting Marketing Margins for Fruits and Vegetables

Marketing margins account for about two-thirds of the retail price of most fresh fruits and vegetables and about four-fifths for the processed products. The increase in marketing charges has resulted mostly from higher costs of performing marketing services and from adding marketing services. Increased costs of performing marketing services are the result of rises in labor costs and transportation charges and increased prices of materials, equipment, and services used by marketing firms.

Labor costs are a major factor affecting marketing charges for fruits and vegetables. Hourly earnings of employees in retail food stores averaged $1.86 in 1958 4/ compared with $1.77 for 1957 and $1.17 for 1948. Employees in the canning and preserving industry earned $1.67 per hour 4/ in 1958 compared with $1.63 in 1957 and $1.12 in 1948.

Transportation charges are one of the larger components of the marketing margin for fruits and vegetables. The rail freight rate index for fruits and vegetables was 28 percent higher for 1957 than for 1947-49. The 1958 index will reflect additional increases. Effective February 15, 1958, the Interstate Commerce Commission granted railroads the following temporary rate increases for fruits and vegetables:

4/ Through Nov. 1958.

Item	Increase
Fresh fruits and vegetables (other than oranges and grapefruit)	5 cents per 100 pounds
Oranges and grapefruit	No increase requested
Irish potatoes	3 percent, maximum 5 cents per 100 pounds
Dried, canned, and frozen fruits and vegetables	1 cent per 100 pounds

In September 1958 the ICC made permanent these temporary increases. Regulated motor carriers responded to the rail rate increases by filing schedules of increased rates with the ICC. It is not known to what extent these motor carrier rate increases are applicable to fruits and vegetables as a large proportion is hauled in trucks owned by farmers or by carriers exempt from ICC rate regulation.

Rate increases have been offset to a certain extent by selective rate reductions made by railroads in an effort to regain some of the traffic lost to truck transportation. Within the last year, railroads have reduced unit transportation charges for vegetables from California and Arizona to the Midwest and East by establishing rate schedules which encourage heavier loading of cars. Likewise, railroads have established incentive rates for heavier loadings of potatoes from some shipping areas. Also, "per car" rates were established for Florida vegetables shipped to northern markets, allowing a shipper to pay a flat rate and load as heavily as he chooses. Another development also reduced transportation charges in 1958. Congress repealed the 3-percent Federal tax on the transportation of property, effective August 1, 1958.

Prices of containers and packaging materials, motortrucks, machinery, and many other items used by marketing firms continued to rise in 1958. Construction costs were up and rents probably increased. Fuel, power, and lighting materials were exceptions to the upward trend, decreasing during 1958.

Prices and Margins for Florida Oranges

The long-term growth in Florida orange production was interrupted by a freeze in December 1957. Total production for the 1957-58 season was down 11 percent, or 10.5 million boxes, from the record 93 million boxes for the previous season.

As a result mainly of freeze damage, the proportion of the 1957-58 crop that went to processors increased to 77 percent compared with 73 percent for the preceding season. This increase was due primarily to the larger share of the crop going into chilled and canned single-strength juice. Most freeze-damaged oranges which could be salvaged were processed into canned juice. Even though total orange production was down, the pack of canned single-strength juice increased 6 percent, from 16.8 million cases for the 1956-57 season to 17.8 million cases for 1957-58. The quantity of oranges marketed commercially in fresh form decreased 26 percent, from 20.7 million boxes during the 1956-57 season to 15.4 million boxes during the 1957-58 season. The pack of frozen concentrate was 21 percent less, or 57.2 million gallons as compared with 72.0 million for the 1956-57 season.

Season Average Prices

At the beginning of the 1957-58 season, prices of oranges at all levels of distribution, including prices to growers, were moderately lower than a year earlier. Immediately after the freeze, retail prices for fresh oranges and frozen orange concentrate began to rise, but the price of canned single-strength juice increased only slightly during the remainder of the season. Prices received by packers of fresh oranges and processors of concentrate and prices they paid to growers soon followed the upward trend of retail prices. Prices received by processors of canned single-strength juice increased slightly but prices paid to growers for juice oranges dropped immediately and remained down during the period when freeze-damaged oranges were being cleared from the groves. Growers' prices for juice oranges later followed the upward movement of prices received by processors.

Prices received by Florida growers during the 1957-58 season averaged higher than during the previous season for oranges for fresh market and for frozen concentrate but lower for juice oranges. "On tree" prices for oranges for fresh market averaged $2.10 per box for the 1957-58 season compared with $1.69 per box for the previous season. "Delivered in" prices paid by processors during the 1957-58 season averaged $2.54 per box for concentrate oranges compared with $1.74 per box for the previous season and $1.19 per box for juice oranges compared with $1.62 per box for the previous season. 5/

None of the processing prices makes allowance for additional payments to growers from cooperatives and other participation programs. Also, some processors own substantial groves. During the 1957-58 season, only 45 percent of the oranges for frozen concentrate were purchased at long-term contract prices or spot prices announced from day to day. For 55 percent of the oranges used for frozen concentrate (77 percent in 1956-57) grower returns are not known. The various types of participation plans are less important for canned juice than for frozen concentrate.

Oranges Marketed in New York and Chicago

Price-spread data for Florida fresh oranges, canned single-strength juice, and frozen concentrate purchased by consumers in Chicago and New York City for the period November 1957-May 1958 and for the corresponding period of 1956-57 are presented in table 14. November-May is the period of the year when the bulk of Florida fresh oranges are marketed. These data show components of the farm-retail spread and permit comparisons of prices and margins for the two periods.

The time required to market fresh Florida oranges from orchard to consumer is about 2 weeks. In contrast, processed orange products average several months in marketing channels. Retail prices shown in table 1 cover the same periods for each item but margins and grower returns for canned single-strength juice and frozen concentrate are for earlier periods than those for fresh oranges and will not correspond to margins calculated on other bases or to season average prices received by growers.

5/ Processing prices reported by Florida Canners' Association, Year Book, Season of 1957-58.

Table 14.- Florida oranges: Retail prices, marketing margins, and grower returns for 24-ounce juice equivalents, Chicago and New York City, November-May 1956-57 and 1957-58

Item	Chicago			New York City		
	Fresh oranges	Canned single-strength juice	Frozen concentrate	Fresh oranges	Canned single-strength juice	Frozen concentrate
	Cents	Cents	Cents	Cents	Cents	Cents
1956-57						
Retail price 1/	23.0	19.1	18.3	27.4	18.8	18.1
Marketing margin:						
Wholesale-retail margin 2/	10.0	3.2	4.4	12.7	2.5	4.2
Transportation charges 3/	4.4	4.1	1.0	4.6	4.5	.9
Packing costs or processor margin 4/	3.3	6.2	5.9	3.3	6.2	6.0
Picking and hauling 5/	1.4	1.3	1.3	1.4	1.3	1.3
Total	19.1	14.8	12.6	22.0	14.5	12.4
On-tree return to grower 6/	3.9	4.3	5.7	5.4	4.3	5.7
1957-58						
Retail price 1/	26.3	17.5	22.0	31.8	17.3	22.5
Marketing margin:						
Wholesale-retail margin 2/	10.5	2.7	4.0	16.1	2.5	4.5
Transportation charges 3/	4.1	3.9	1.0	4.0	3.9	.9
Packing costs or processor margin 4/	3.6	6.9	10.4	3.6	6.9	10.5
Picking and hauling 5/	1.5	1.5	1.6	1.5	1.5	1.6
Total	19.7	15.0	17.0	25.2	14.8	17.5
On-tree return to grower 6/	6.6	2.5	5.0	6.6	2.5	5.0

1/ Average price first 3 days of the week containing the 15th of each month, Bur. of Labor Statistics.

2/ Fresh: Retail price less terminal selling charges and auction price.
Canned: Retail price less transportation charges and f.o.b. cannery price. F.o.b. cannery price for week containing 1st of each month, reported in "Canning Trade" magazine.

3/ Rail freight from Lake Wales, Fla., plus standard refrigeration charges for fresh and frozen; includes 3 percent Federal transportation tax.

4/ Fresh: Spurlock, A. H., and Hamilton, H. G., Costs of Packing and Selling Florida Fresh Citrus Fruits, 1956-57 Season.,Agr. Econ. Mimeo. Rpt. No. 58-6, Fla. Expt. Sta.,Gainesville, Fla., and unpublished estimates for 1957-58.
Canned: F.o.b. cannery price less weighted average delivered-in price paid by processors.
Frozen: Exkey-warehouse price less transportation charges and weighted average delivered-in price paid by processors.

5/ Spurlock, A. H. Costs of Picking and Hauling Florida Citrus Fruits, 1956-57 Season, Agr. Econ. Mimeo. Rpt. No. 58-7, Fla. Expt. Sta., Gainesville, Fla., and unpublished estimates for 1957-58.

6/ Fresh: Retail price less total marketing margin.
Canned and frozen: Weighted average delivered-in price paid by processors less picking and hauling costs.

The retail price for frozen orange concentrate declined from 1952-53 through 1956-57 while prices for fresh oranges and canned single-strength juice increased. During the November 1956-May 1957 period consumers paid less for equal quantities of orange juice from frozen concentrate than from fresh oranges or canned single-strength juice. Retail prices of frozen concentrate in Chicago average 18.3 cents 6/ compared with 23.0 cents for fresh oranges and 19.1 cents for canned single-strength juice in quantities that would supply an equal quantity of juice to the consumer. 7/ This relationship between prices changed in 1957-58. Retail prices were lower for canned single-strength juice and higher for fresh oranges and frozen concentrate. Retail prices in Chicago averaged 22.0 cents for frozen concentrate, 26.3 cents for fresh oranges, and 17.5 cents for canned single-strength juice. A similar change occurred in New York City (fig. 4).

The total marketing margin was higher for fresh oranges than for frozen concentrate or for canned single-strength juice during both periods. Frozen concentrate had the lowest total marketing margin during the 1956-57 period but canned single-strength juice had the lowest margin during 1957-58. Total marketing margins increased for all three items between the two periods; however, the increase for canned single-strength juice was only 1 percent for that sold in Chicago and 2 percent for that sold in New York City. The largest change was for frozen concentrate, with a 35 percent increase for that sold in Chicago and a 41 percent increase for that sold in New York City. These large increases reflect gains in values of inventories held by processors and others during the 1958 period of rising prices. Processors and others with frozen concentrate stocks on hand at the time of the freeze received gains during the 1957-58 period, just as they sustained losses when prices declined during the previous year.

The wholesale-retail margin was the largest component of the total marketing margin for fresh oranges. The processors' margin was the largest component for frozen concentrate and for canned single-strength juice. The relative size of these margins reflects the perishable nature of fresh oranges and the extensive preparation, packaging, and storage required for frozen concentrate and canned single-strength juice. As a percentage of the retail price in Chicago during the 1957-58 period, the wholesale-retail margin averaged 40 percent for fresh oranges compared with 43 percent a year earlier; the processors' margin averaged 47 percent for frozen concentrate and 39 percent for canned single-strength juice compared with 32 percent for both a year earlier. The increase in processors' margin accounted for most of the increase in the total marketing margin for frozen concentrate.

6/ Retail prices reported by the Bureau of Labor Statistics represent mainly nationally advertised brands of orange concentrate. Processors' selling prices for nationally advertised brands are somewhat higher than prices received for other brands. Thus, although the data reflect changes that have taken place between the two periods, the processors' margin is slightly higher than for all concentrate.

7/ Prices quoted for 24-oz. juice equivalents, i.e., 6-oz. can of frozen concentrate, 24-oz. of canned single-strength juice, and 3 lb. of fresh oranges.

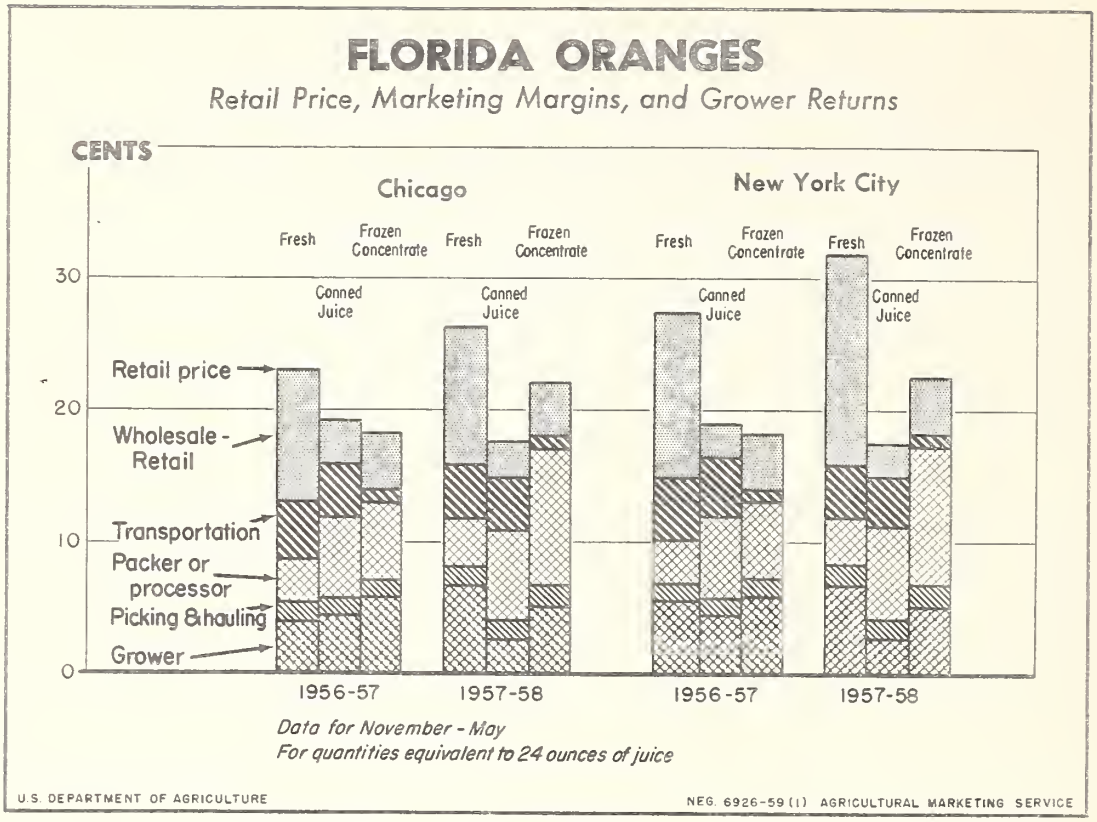

Figure 4

Transportation charges are a much larger component of the total marketing margin for fresh oranges and for canned single-strength juice than for frozen concentrate. As a percentage of the retail price in Chicago during the 1957-58 period, transportation charges averaged 16 percent for fresh oranges and 22 percent for canned single-strength juice but only 5 percent for frozen concentrate. The small percentage for frozen concentrate reflects the reduction in weight of the orange juice during the concentrating process. There were a number of adjustments in rail transportation rates during the last 2 years. The net effect was a reduction in transportation charges for all three items during the 1957-58 period; however, for frozen concentrate the reduction was less than 0.1 cent per 6-ounce can.

During the 1956-57 period growers received the largest returns per unit of retail product from oranges used for concentrate but they received the largest returns from oranges for fresh market during the 1957-58 period. Grower returns from juice oranges were lowest during both periods. Returns to growers from oranges used for frozen concentrate retailed during the November 1957-May 1958 period were 12 percent less than for the same period a year earlier. This again reflects the change in prices at all levels in 1958 between the time oranges were sold by producers and the time they were sold to consumers as concentrate. Although retail prices for frozen concentrate increased between the two periods, this increase was more than offset by the larger total marketing margin. On the other hand, returns

to growers from fresh market oranges increased between the two periods, reflecting most of the retail price increase in Chicago and some of the retail price increase in New York City. Returns to growers from oranges used for juice purchased by consumers during the 1957-58 period were substantially less than those for the like period a year earlier. Growers with profit-sharing arrangements had smaller returns for 1956-57 and larger returns for 1957-58 than those shown in table 14.

Prices and Margins for Late-Crop Potatoes

The 1957 late potato crop was smaller than the 1956 crop and prices at the beginning of the 1957-58 marketing season were moderately higher than a year earlier. Disappearance of late-crop potatoes was unusually high during December and January. Furthermore, the adverse effects of freezing and wet weather on the production of Florida winter and early spring potatoes became apparent during January and February. The reduced stocks of late-crop potatoes, Florida's small winter crop, and delay in the early spring crop were reflected in price advances beginning in February. Advancing prices attracted larger imports of Canadian potatoes and accelerated shipments from Maine and Idaho. Fewer potatoes were diverted to starch and stock feed. By April, it became clear that supplies were not as short as had been expected. This realization, plus the impending late spring crop, contributed to a sharp price decline during April.

Retail prices of late-crop potatoes in four major cities were 12 percent higher during the October 1957-April 1958 period than for the same period a year earlier (table 15). The largest increase was in Chicago where the retail price advanced 25 percent to $7.39 per 100 pounds as compared with $5.91 per 100 pounds during 1956-57. In addition to retail price advances for all potatoes in Chicago, the average retail price increased because the higher priced western Russet potatoes made up a large proportion of the total potato volume marketed in Chicago during the 1957-58 season. Retail prices in Los Angeles were higher than in any of the other three cities during both seasons. Retail price increases averaged 4 percent in Los Angeles, 12 percent in Atlanta, and 16 percent in New York City.

The total marketing margin was highest for late-crop potatoes marketed in Los Angeles and lowest for those marketed in New York City during both the 1956-57 and 1957-58 seasons. This is due mainly to the preponderance of higher priced Long White and Russet types of potatoes marketed in Los Angeles and to the large percentage of lower priced round-white varieties marketed in New York City. Total marketing margins for potatoes marketed in the four cities changed little between the two seasons. The largest change was a 10 percent increase in Chicago, resulting to some extent from the increased proportion of western Russets in the market. Changes for the other three cities were increases of 3 percent for Atlanta and 1 percent for New York City and a decrease of 3 percent for Los Angeles.

Table 15.- Late-crop potatoes: Retail prices, marketing margins, and grower returns for 100 pounds, four major cities, October-April 1956-57 and 1957-58

Item	Atlanta	Chicago	Los Angeles	New York City	4-City average
	Dollars	Dollars	Dollars	Dollars	Dollars
1956-57					
Retail price 1/	6.13	5.91	7.67	5.56	6.38
Marketing margin:					
Retail margin 2/	2.77	2.58	4.33	2.54	3.16
Wholesale margin 3/	.27	.49	.42	.28	.38
Transportation charges 4/	1.06	1.09	.50	.94	.84
Packer margin 5/	.62	.66	.68	.46	.59
Total	4.72	4.82	5.93	4.22	4.97
Return to grower 6/	1.41	1.09	1.74	1.34	1.41
1957-58					
Retail price 1/	6.87	7.39	7.99	6.45	7.17
Marketing margin:					
Retail margin 2/	2.87	3.04	4.13	2.63	3.20
Wholesale margin 3/	.19	.32	.40	.30	.33
Transportation charges 4/	1.16	1.23	.53	.86	.87
Packer margin 5/	.65	.71	.69	.47	.60
Total	4.87	5.30	5.75	4.26	5.00
Returns to grower 6/	2.00	2.09	2.24	2.19	2.17

1/ Weighted average price for first 3 days of the week containing the 15th of each month, Bur. of Labor Statistics.

2/ Weighted average retail price less weighted average l.c.l. wholesale price for Tuesday of the week containing the 8th of each month.

3/ Weighted average l.c.l. wholesale price less weighted average transportation charges and f.o.b. shipping-point prices, lagged to allow physical movement through marketing channels.

4/ Weighted average rail freight and truck transportation charges from applicable shipping points, including 3 percent Federal transportation tax.

5/ Weighted average f.o.b. shipping-point price less weighted average price to grower.

6/ Weighted average price to grower, lagged to allow physical movement through marketing channels.

The retail margin was the largest component of the total marketing margin and accounted for most of the change in total margin from 1956-57 to 1957-58. The retail margin increased 18 percent in Chicago, 4 percent in Atlanta, and 4 percent in New York City, and decreased 5 percent in Los Angeles.

Average shipping-point-to-terminal transportation charges increased from 1956-57 to 1957-58 for late-crop potatoes marketed in Atlanta, Chicago, and Los Angeles and decreased for those sold in New York City. Higher transportation charges, to some extent, reflected increased transportation rates from some producing areas but were also due to larger shipments from the more distant areas. The decrease for New York City resulted from heavier loading of rail-cars from Maine, with a reduction in unit transportation charges. Also, there was a small increase in the proportion of Long Island potatoes marketed in New York City, with a reduction in the proportion of late-crop potatoes from the more distant producing areas.

Most of the retail price increase for the 1957-58 season was reflected in grower returns. Grower returns from late-crop potatoes marketed in the four cities averaged 54 percent higher for the 1957-58 season than for the previous season. The largest increase in grower returns was for potatoes marketed in Chicago, averaging 92 percent higher for the 1957-58 season than for the previous season. Although grower returns averaged higher for all potatoes marketed in Chicago during the 1957-58 season, the largest increase was for round-red potatoes. Increases in grower returns for the three other cities averaged 42 percent for Atlanta, 29 percent for Los Angeles, and 63 percent for New York City. The grower's share of the retail price for potatoes marketed in each of the four cities ranged from 28 to 34 percent for the 1957-58 season compared with 18 to 24 percent for 1956-57.